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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,376	06/15/2005	Alexander Cornelis Geerlings	NL 021336	4271

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EXAMINER

BERTRAM, RYAN

ART UNIT	PAPER NUMBER
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2187

MAIL DATE	DELIVERY MODE
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05/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,376	GEERLINGS, ALEXANDER CORNELIS	
	Examiner	Art Unit	
	Ryan Bertram	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/15/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The instant application having Application No. 10/539,376 has a total of 24 claims pending in the application, there is 1 independent claim and 23 dependent claims, all of which are ready for examination by the examiner.

I. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Price (US 6,578,106).

1. Regarding claim 1, Price discloses a scheduler for an apparatus comprising a disc storage device, the scheduler being designed for receiving data and writing the data in storage space of a storage medium of the disc storage device [**see Col. 5, lines 10-29**];

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the scheduler being designed to operate in a first mode wherein the scheduler, when setting at least one operating parameter, sets such operating parameter with a view to low noise generation **[see Col. 4, lines 49-62]**.

2. Regarding claim 2, Price discloses the scheduler according to claim 1, wherein the scheduler is always operating in said first mode **[see Col. 4, lines 49-62. The device will always operate in a specific mode, unless changed by the user]**.

3. Regarding claim 3, Price discloses the scheduler according to claim 1, the scheduler also being capable of operating in at least a second mode in which the scheduler, when setting said operating parameter, sets said operating parameter without noise reduction **[see Col. 5, lines 1-9]**.

4. Regarding claim 4, Price discloses the scheduler according to claim 3, wherein the scheduler, when operating in said second mode, sets said operating parameter to a value or selection different from the one when operating in said first mode, while the value or selection of said operating parameter as set in said first mode results in an amount of noise generation less than the amount of noise associated with the value or selection of said operating parameter as set in said second mode **[see Col. 4, lines 49-62]**.

5. Regarding claim 5, Price discloses the scheduler according to claim 2, wherein the operative mode of the scheduler is user-selectable, and wherein the scheduler is responsive to user input to select its operative mode as either said first mode or said second mode **[see Col. 6, lines 48-62]**.

6. Regarding claim 6, Price discloses the scheduler according to claim 2, wherein the scheduler is capable of determining the presence of at least one person in the vicinity of the said apparatus, and wherein the scheduler is designed to select its operative mode as said first mode when it determines the presence of at least one person, and wherein the scheduler is designed to select its operative mode as said second mode when it determines the absence of persons **[see Col. 6, lines 48-62. The device is able to detect the presence of a person when they are entering settings/commands into the device]**.

7. Regarding claim 7, Price discloses the scheduler according to claim 2, provided with a time-of-day clock, the scheduler being designed to select its operative mode depending on the time of day **[see Col. 5, lines 30-48]**.

8. Regarding claim 8, Price discloses the scheduler according to claim 1, the scheduler being designed to generate write commands for the disc storage device, wherein said at least one operating parameter is a target address of a storage location in said storage space where the data is to be written to **[see Col. 5, lines 10-29]**.

9. Regarding claim 9, Price discloses the scheduler according to claim 1, the scheduler being designed to generate read commands for the disc storage device, wherein said at least one operating parameter is a target address of a storage location in said storage space where the data is to be read from **[see Col. 5, lines 10-29]**.

10. Regarding claim 10, Price discloses the scheduler according to claim 8, wherein the scheduler is associated with a memory containing information on a sound characterization of the disc storage device; wherein the scheduler is designed, when operating in said first mode, to consult the information in said memory when selecting a target address of a storage location in said storage space **[see Fig. 1, 76]**.

11. Regarding claim 23, Price discloses an apparatus comprising a disc storage medium and a scheduler according to claim 1 **[see Fig. 1]**.

12. Regarding claim 24, Price discloses the apparatus according to claim 23, wherein the disc storage medium comprises a hard disc drive unit **[see Col. 4, 34-48; Col. 1]**.

Claims 1-5, 9, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Nazarian (US 6,757,481).

13. Regarding claim 1, Nazarian discloses a scheduler for an apparatus comprising a disc storage device,

the scheduler being designed for receiving data and writing the data in storage space of a storage medium of the disc storage device **[see Col. 4, lines 47-67]**;

the scheduler being designed to operate in a first mode wherein the scheduler, when setting at least one operating parameter, sets such operating parameter with a view to low noise generation **[see Col. 3, lines 18-42]**.

14. Regarding claim 2, Nazarian discloses the scheduler according to claim 1, wherein the scheduler is always operating in said first mode **[see Col. 3, lines 18-42]**.
The device will always operate in a specific mode, unless changed by the user].

15. Regarding claim 3, Nazarian discloses the scheduler according to claim 1, the scheduler also being capable of operating in at least a second mode in which the scheduler, when setting said operating parameter, sets said operating parameter without noise reduction **[see Col. 2, lines 38-54]**.

16. Regarding claim 4, Nazarian discloses the scheduler according to claim 3, wherein the scheduler, when operating in said second mode, sets said operating parameter to a value or selection different from the one when operating in said first mode, while the value or selection of said operating parameter as set in said first mode

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results in an amount of noise generation less than the amount of noise associated with the value or selection of said operating parameter as set in said second mode **[see Col. 3, lines 18-42]**.

17. Regarding claim 5, Price discloses the scheduler according to claim 2, wherein the operative mode of the scheduler is user-selectable, and wherein the scheduler is responsive to user input to select its operative mode as either said first mode or said second mode **[see Col. 3, lines 18-42]**.

18. Regarding claim 9, Price discloses the scheduler according to claim 1, the scheduler being designed to generate read commands for the disc storage device, wherein said at least one operating parameter is a target address of a storage location in said storage space where the data is to be read from **[see Col. 4, lines 47-67]**.

19. Regarding claim 23, Price discloses an apparatus comprising a disc storage medium and a scheduler according to claim 1 **[see Fig. 2]**.

20. Regarding claim 24, Price discloses the apparatus according to claim 23, wherein the disc storage medium comprises a hard disc drive unit **[see Col. 2, lines 31-37]**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price in view of Nazarian et al. (US 6,757,481) hereinafter Nazarian.

21. Regarding claim 11, Price discloses the scheduler according to claim 8 as discussed above.

Price does not expressly disclose that the disc storage space comprises quiet area and noisy area; and wherein the scheduler is designed, when operating in said first

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mode, if there is sufficient storage space available in said quiet area as well as in said noisy area, to select target addresses within said quiet area of the storage space.

Nazarian discloses disc drive divided into a quiet mode section and a louder performance mode section, wherein the quiet area is used if that is the mode it is set in and free space is available **[see Col. 10, lines 54-65]**.

Price and Nazarian are analogous art because they are from the same field of endeavor, namely reducing noise in disc drives.

At the time of the invention it would have been obvious to a person of ordinary skill in the art modify the data storage system taught by price with the sectioned disk drive taught by Nazarian.

The motivation for doing so would have been to achieve greater performance and functionality **[see Col. 10, lines 54-65]**.

Therefore, it would have been obvious to combine Price with Nazarian for the benefit of achieving greater performance and functionality, to obtain the invention as specified in claim 11.

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22. Regarding claim 12, Price and Nzaraian disclose the scheduler according to claim 11, wherein the scheduler is designed, in said second mode, to select target addresses outside said quiet area of the storage space.

Claims 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price in view of Nazarian as applied to claims 1 and 11 above, and further in view of Tachikawa (US 6,636,951).

23. Regarding claim 15, Price and Nazarian disclose the scheduler according to claim 11 as discussed above.

Price and Nazarian do not expressly disclose relocating or copying data within the disc drive.

Tachikawa discloses a data storage system that is capable of copying and relocating data on a disc drive **[see Col. 1, lines 55-61]**.

Price, Nazarian, and Tachikawa are analogous art because they are from the same field of endeavor, namely data management in a disc drive.

At the time of the invention it would have been obvious to a person of ordinary skill in the art modify the controller taught by Price and Nazarian with the controller capable of copying and relocating data as taught by Tachikawa.

The motivation for doing so would have been to allow data to be freely moved around to make the drive operate more efficiently **[see Col. 1, lines 16-20]**.

Therefore, it would have been obvious to combine Price and Nazarian with Tachikawa for the benefit of making the disc drive more efficient, to obtain the invention as specified in claim 15.

24. Regarding claim 16, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 15, wherein the scheduler is designed to perform such relocation process in response to receiving user input indicating that the recording is intended for long-term storage **[see Price, Col. 6, lines 48-62]**.

25. Regarding claim 17, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 11, wherein the scheduler is designed to copy a recording from a noisy area of the storage space to a quiet area of the storage space **[see Tachikawa, Col. 1, lines 55-61; Nazarian, Col. 10, lines 54-65]**.

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26. Regarding claim 18, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 17, wherein the scheduler is designed to perform such copying process in response to receiving user input indicating that the recording is to be played in the near future **[see Price, Col. 6, lines 48-62]**.

27. Regarding claim 19, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 15, wherein the scheduler is designed to perform such relocation or copying process during an idle moment **[see Tachikawa, Col. 3, lines 1-4]**.

28. Regarding claim 20, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 15, provided with a time-of-day clock, the scheduler being designed to perform such relocation process during a predetermined time slot **[see Tachikawa, Col. 1, lines 55-61; Price, Col. 5, lines 30-48]**.

29. Regarding claim 21, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 20, responsive to user input to set said time slot in future **[see Price, Col. 6, lines 11-21]**.

30. Regarding claim 22, Price, Nazarian, and Tachikawa disclose the scheduler according to claim 1, the scheduler being designed, when operating in said first mode, to reduce seek movements when writing/reading in/from a noisy area and to increase

seek movements when writing/reading in/from a quiet area **[see Nazarian, Col. 1, lines 11-25]**.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price in view of Nazarian, and in further view of Chamberlin et al. (US 2004/0223722) hereinafter Chamberlin.

31. Regarding claim 13, Price and Nazarian disclose the scheduler according to claim 8 as discussed above.

Price and Nazarian do not expressly disclose that the disc storage space comprises mid-disc area, inner disc area and outer disc area wherein the scheduler is designed, when operating in said first mode, if there is sufficient storage space available in said mid-disc area as well as in said inner disc area or outer disc area, to select target addresses within said mid-disc area of the storage space.

Chamberlin discloses digital recording system that uses disc storage space divided into 3 areas. Data is stored into each area depending on the user needs **[see Col. Fig. 2; paragraphs 36, 38]**.

Price, Nazarian, and Chamberlin are analogous art because they are from the field of endeavor, namely managing data in a digital recording system.

At the time of the invention it would have been obvious to a person of ordinary skill in the art modify the system taught by Price and Nazarian with the divided disc storage space taught by Chamberlin.

The motivation for doing so would have been to improve the recording system's bandwidth [see paragraph 12].

Therefore, it would have been obvious to combine Price and Nazarian with Chamberlin for the benefit of increasing bandwidth, to obtain the invention as specified in claim 13.

32. Regarding claim 14, Price, Nazarian, and Chamberlin disclose the scheduler according to claim 13, wherein the scheduler is designed, in said second mode, to select target addresses outside said mid-disc area of the storage space [see paragraphs 36, 38].

II. CLOSING COMMENTS

Conclusion

(a) Status of Claims In the Application

(i) Claims Rejected In the Application

Per the instant office action, claims 1-24 have received a first action on the merits and are subject of a first action non-final.

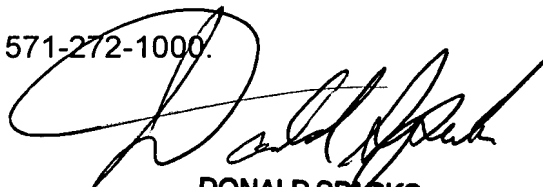
(b) Directions of Future Correspondences

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Bertram whose telephone number is 571-270-1377. The examiner can normally be reached on Mon-Fri 8am-5pm ET (Alternate Fridays off).

Important Note

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DONALD SPARKS
SUPERVISORY PATENT EXAMINER